Claims

1. System for generating automation code from descriptions (1)
   enriched with control-relevant information, comprising
   - components (2) described in the descriptions (1), the
     components having ports (6) and being represented in
     each case by at least one functional module (3),
   - input/output information on the ports (6) reproduced
     from directed relationships (9) between the components
     (2) contained in the descriptions (1),
   - signals (4) associated with the functional modules (3),
     the signals (4) being provided for transmission via the
     ports (6) of the components (2),
   - first means (5) for defining metainformation for the
     signals (4), and
   - a code generator (7) for producing automation code
     through interconnection of the signals (4).

2. System according to claim 1, characterized in that the
   system is provided for the generation of automation code
   for manufacturing and/or processing plants.

3. System according to claim 1 or 2, characterized in that a
   drawing with control-relevant information is provided for
   use as description (1).

4. System according to claim 1 or 2, characterized in that
   fourth means for inputting control-relevant information are
   provided for use as description (1).

5. System according to any one of the preceding claims,
   characterized in that a material and/or energy and/or

information flow in a manufacturing and/or processing plant
is provided as a basis for reproducing the directed
relationships between the components.

5 6. System according to any one of the preceding claims,
   characterized in that the generation of automation code is
   provided for central and/or distributed automation
   solutions.

10 7. Method for generating automation code from descriptions (1)
    enriched with control-relevant information, whereby
    - components (2) described in the descriptions (1) are
       represented in each case by at least one functional
       module (3), and via ports (6)
15   - input/output information on the ports (6) is reproduced
          from directed relationships (9) between the components
          (2) contained in the descriptions (1),
       - signals (4) associated with the functional modules (3)
          are transmitted via the ports (6) of the components,
20   - metainformation is defined for the signals (4) and
       - automation code is generated through interconnection of
          the signals (4).

    8. Method according to claim 7, characterized in that
25   automation code is generated for manufacturing and/or
       processing plants.

    9. Method according to claim 7 or 8, characterized in that a
       drawing with control-relevant information is used as
30   description.

10. Method according to claim 7 or 8, characterized in that control-relevant information is input as description.

11. Method according to any one of claims 7 to 10, characterized in that a material and/or energy and/or information flow in a manufacturing and/or processing plant is used as a basis for reproducing the directed relationships between the components.

12. System according to any one of the preceding claims, characterized in that automation code is generated for central and/or distributed automation systems.